

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 20, 2004, which supplements and sets a new period of response for the Office Action dated November 18, 2004. Claims 1 to 8 are pending in the application. Claim 1, which is the only independent claim, has been amended. Reconsideration and further examination are respectfully requested.

An objection was lodged against the Abstract based on lines 12 to 16 thereof. However, this objection has provisionally been addressed, in an Amendment dated May 14, 2004, which cancelled lines 12 to 16. Therefore, no further amendment has been made to the Abstract, and withdrawal of the objection is respectfully requested.

In the Supplemental Office Action, Claims 1, 4, 5 and 8 were rejected under 35 U.S.C. § 103(a) over U.S. Patent No. 6,674,010 (Inui) in view of U.S. Patent No. 5,268,676 (Asprey). Claims 2, 3, 6 and 7 were rejected under 35 U.S.C. § 103(a) over Inui in view of Asprey and further in view of Applicant's Own Admission of Prior Art (AOAPA). Reconsideration and withdrawal are respectfully requested.

The present invention generally concerns a shielded cable which includes first signal wires for transmitting digital signals of a relatively high frequency, and second signal wires for transmitting digital signals of a relatively low frequency. The shielded cable also includes an insulating film with which the first and second signal wires are collectively covered, wherein changing a thickness of the insulating film adjusts the impedance of the first signal wires. In addition, the shielded cable includes an outer shield which is formed outside the insulating film. Each of the first and second signal wires is bundled in a state of being electrically insulated from each other with an insulating sheath.

In addition, all of the first signal wires are placed directly adjacent to the outer shield and directly adjacent to one another.

Thus, among its many features, the present invention provides that (i) an insulating film collectively covers the first and second signal wires, wherein changing a thickness of the insulating film adjusts the impedance of the first signal wires, and that (ii) all of the first signal wires are placed directly adjacent to the outer shield and directly adjacent to one another.

By virtue of the foregoing, in which (i) an insulating film collectively covers the first and second signal wires, wherein changing a thickness of the insulating film adjusts the impedance of the first signal wires, and in which (ii) all of the first signal wires are placed directly adjacent to the outer shield and directly adjacent to one another, impedance adjustment for the first signal lines is improved, and radiant noise and cross talk are reduced. The applied references of Inui, Asprey and AOAPA are not seen to disclose or to suggest at least these foregoing features.

As understood by Applicant, Inui describes an electronic device connection cable that contains high-speed signal lines 301 (including signal lines 302 and clock lines 303), low-speed signal lines 304, and ground lines 305. Inui further teaches that the electronic device connection cable 201 contains a woven metal shield 313. See Inui, column 8, lines 24-41; and Figure 2.

However, Inui is not seen to disclose or suggest an insulating film that collectively covers the first and second signal wires, wherein changing a thickness of the insulating film adjusts the impedance of the first signal wires. Furthermore, and as acknowledged in the Office Action, Inui does not disclose or suggest that all of the first

signal wires are placed directly adjacent to the outer shield and directly adjacent to one another.

Asprey was cited for its alleged disclosure of first signal wires that are placed directly adjacent to the outer shield and directly adjacent to one another. As understood by Applicant, Asprey discloses a communication cable 200 constructed of multiple, insulated conductors 204 and a shield 206. An insulative cover 208 covers and protects the conductors and the shield. Clock and data signals are applied to adjacent conductors 204c and 204d, respectively, and keyboard +5 volt power and ground potentials are applied to interposing conductors 204p and 204 g, respectively. The interposed conductors 204p and 204g allegedly shield radiation from the keyboard clock and data signals from color video information applied to conductors 204v. See Asprey, Figure 5; and column 6, lines 25 to 42.

The Office Action equated the conductors 204v of Asprey with the claimed first signal wires, and equated the shield 206 of Asprey with the claimed outer shield. Although the conductors 204v of Asprey may be seen to be directly adjacent to one another, they are all not directly adjacent to the shield 206. Instead, only some of the conductors 204v of Asprey are directly adjacent to the shield 206. As seen in Figure 5 of Asprey, two of the conductors 204v are separated from the shield 206 by other conductors which are directly adjacent to the shield 206. This is different than the present invention, in which all of the first signal wires are placed directly adjacent to the outer shield and directly adjacent to one another.

Moreover, nothing Asprey is seen to disclose or suggest an insulating film that collectively covers the first and second signal wires, wherein changing a thickness of

the insulating film adjusts the impedance of the first signal wires. In addition, Asprey is not seen to disclose or suggest the attendant benefits provided by such an insulating film.

Accordingly, Inui and Asprey are not seen to disclose or suggest that (i) an insulating film collectively covers the first and second signal wires, wherein changing a thickness of the insulating film adjusts the impedance of the first signal wires, and (ii) all of the first signal wires are placed directly adjacent to the outer shield and directly adjacent to one another.

In addition, AOAPA has been reviewed and is not seen to compensate for the deficiencies of Inui and Asprey.

Accordingly, based on the foregoing amendments and remarks, independent Claim 1 as amended is believed to be allowable over the applied references.

The other claims in the application are each dependent from the independent claim and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

Finally, an Information Disclosure Statement accompanies this Amendment.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa,
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our below-listed address.

Respectfully submitted,



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